

REMARKS

The Amendment

Claim 1 is amended to recite producing a dendrimeric structure on a support surface to clarify the meaning of the claim. Support for the amendment can be found, in Claim 1 as filed.

The Response

Specification

(a) Trademarks

Applicants have amended the specification to capitalize the trademarks TEFLON® and JEFFAMINE® and add the generic terminology.

(b) Headings

Applicants have amended the specification to insert appropriate headings as the Examiner suggested.

35 U.S.C. §112, Second Paragraph Rejections

Claims 2 and 12 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regards as the invention. The rejection is overcome in view of the claim amendment.

Claim 2 is amended to replace the Trademark name with a generic name.

Claims 1 and 12 are amended to recite a method of producing a dendrimeric structure on a support surface.

In Claim 12, after the dendrimeric structure on a support surface is prepared, a new activation step is carried out to activate the support surface, and then the activated group is reacted with biopolymers.

35 U.S.C. §102(a) Rejections

Claims 1-3, 8, 9, 11-13 and 20-21 are rejected under 35 U.S.C. §102(a) as allegedly being anticipated by Beier, et al., (Nucleic Acids Research, Vol. 27, Number 9).

Beier, et al. was published in 1999, therefore, it is not a prior art against the present application, which has a priority date of November 18, 1998.

35 U.S.C. §102(b) Rejections

(a) Claims 1-3, 11-12, and 21 are rejected under 35 U.S.C. §102(b) as being anticipated by Cahalan, *et al.*, (U.S. Patent No. 5,607,475). The rejection is traversed because the reference does not teach a method for producing a dendrimeric structure on a support surface

Cahalan describes a method of derivatizing metal or glass surfaces of a biomedical article. The derivatizing procedure contains the following steps:

- (a) silanization with a vinylsilane
- (b) incorporation of the end terminal vinyl function via polymerization with acrylamide and acrylic acid in a polymer,
- (c) binding of a polyamine spacer onto the surface,
- (d) linking of a biomolecule to the polyamine spacer.

The present application, however, contains the preparation of a dendrimeric surface structure. This is done by the following steps:

- (a) activation of functional groups on the surface by an activating reagent,
- (b) reaction with a polyamine,
- (c) repetition of steps (a) and (b) until a dendrimeric surface structure is obtained.

The main difference of the process of the present invention compared with the Cahalan process is that in Cahalan the polyamine is used only as spacer component and does not make an active reaction with functional groups on the surface. Cahalan does not describe and does not intend to build up a dendrimeric surface structure for binding molecules.

Therefore, the 35 U.S.C. §102(b) rejection of Claims 1-3, 11-12, and 21 over Cahalan should be withdrawn.

(b) Claims 1-3, 11-12, and 21 are rejected under 35 U.S.C. §102(b) as being anticipated by Stolowitz, *et al.*, (U.S. Patent No. 4,837,348). The rejection is traversed.

Stolowitz is distinctly different from that of the present invention. Stolowitz describes certain surfaces of CGP beads and silica. Stolowitz does not use a polyamine component and

does not create dendrimeric structures but linear structures.

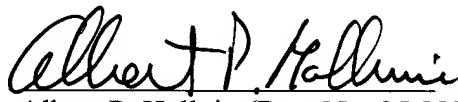
Therefore, the 35 U.S.C. §102(b) rejection of Claims 1-3, 11-12, and 21 over Stolowitz should be withdrawn.

CONCLUSION

Applicants believe that the application is in good and proper condition for allowance. Early notification of allowance is earnestly solicited. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is encouraged to call the undersigned attorneys.

Respectfully submitted,

Date: January 8, 2004


Albert P. Halluin (Reg. No. 25,227)
Viola T. Kung (Reg. No. 41,131)

HOWREY SIMON ARNOLD & WHITE, LLP
301 Ravenswood Avenue
Box No. 34
Menlo Park, CA 94025
(650) 463-8109
(650)463-8181